

BBRS/DPS News Update for Builders and Building Officials May 13 and 14, 2015

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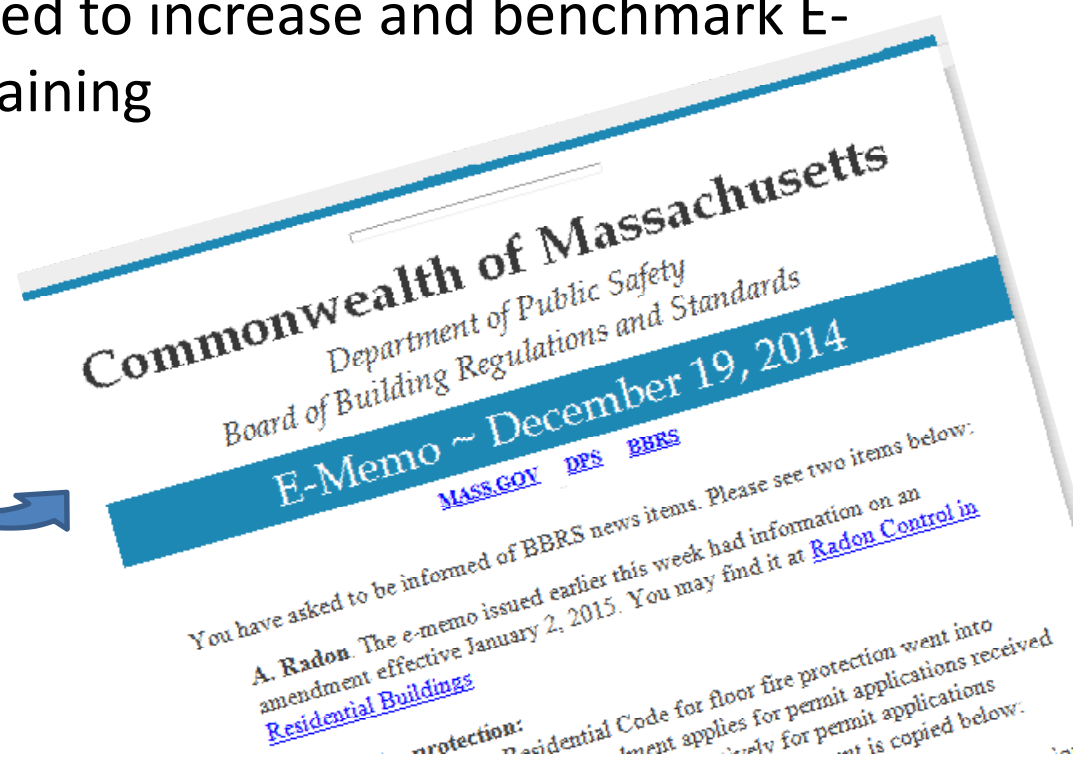
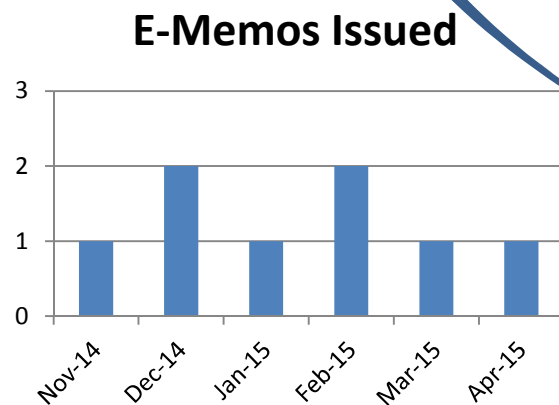
BBRS/DPS News Update

Agenda

- Recent BBRs Meeting Topics
- BBRs/DPS News
- 8th Edition:
 - Recent Amendments and
 - Policies.
- Existing Building Code & Official Interpretations
- 780 CMR 9th edition: *(No discussion)*
- Quiz

Recent BBRS Meeting Topics

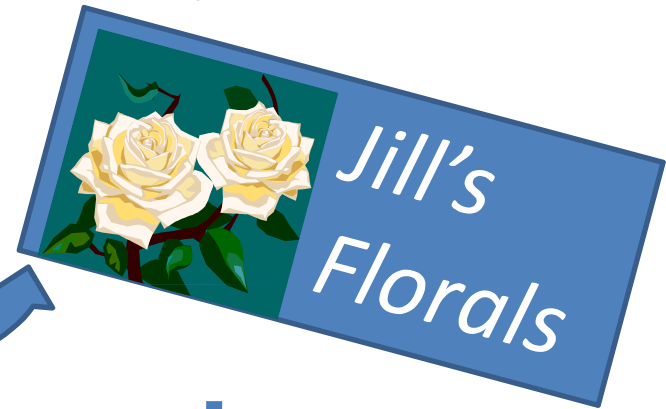
- Communication
 - Feedback from Building Officials and Builders indicate BBRS is not out 'in the field' enough
 - BBRS/DPS committed to increase and benchmark E-Memos and DPS Training



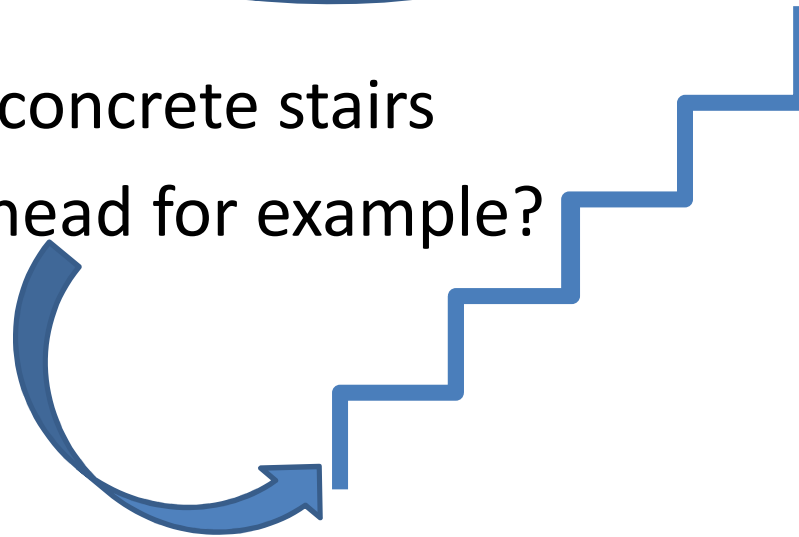
Most Recent E-Memo

- Construction Supervisor License, is it needed for the installation of

- Signs? or



- Precast concrete stairs for a bulkhead for example?



E-memo Feedback

- Don't hold back....give us your thoughts.

Hi Mike,

I have received the memo re precast steps not needing a CSL.... So this means that a landscaper or a painter or even an auto mechanic, for example, can now obtain permits to install these????????????? This seems to further fragment the intention of the code and our licensing requirements. There are many products which get installed on buildings and have specific manufacturer's requirements.... Roof shingles, vinyl siding, replacement window, wood stoves, solar systems, segmented block retaining walls and steps.... Will we then say that these do not need a CSL as long as we follow the instructions? Why not? If this works for one product manufacturer, why not all?

This interpretation is a dis-service to the resident/taxpayers of the Commonwealth and yet another source of confusion and lack of uniformity within the code.

Please pass these comments on to the Board.

Thank you.

New DPS E-Memo Web Page

- A repository for Communication is here...

The screenshot shows the official website of the Executive Office of Public Safety and Security. The header includes the Mass.gov logo, navigation links for State Offices & Courts, State A-Z Topics, and State Forms, along with a 'No Active Alerts' notification and a 'Skip to main content' link. The main navigation bar features the Public Safety logo and a search bar. Below this, a horizontal menu lists various public safety categories: Public Safety Agencies, Homeland Security & Emergency Response, Crime Prevention & Personal Safety, Consumer Protection & Business Licensing (highlighted), Funding & Training Opportunities, Law Enforcement & Criminal Justice, and Firearms Registration & Laws.

The breadcrumb trail indicates the current page is 'E-Memos: Important building code announcements from DPS'. The main heading is 'E-Memos: Important building code announcements from DPS/BBRS'. The text explains that E-Memos are important building code announcements issued to stakeholders on an as-needed basis by the Department of Public Safety (DPS) and the BBRS. Parties interested in being added to the E-Memo distribution list should contact kimberly.spencer@state.ma.us.

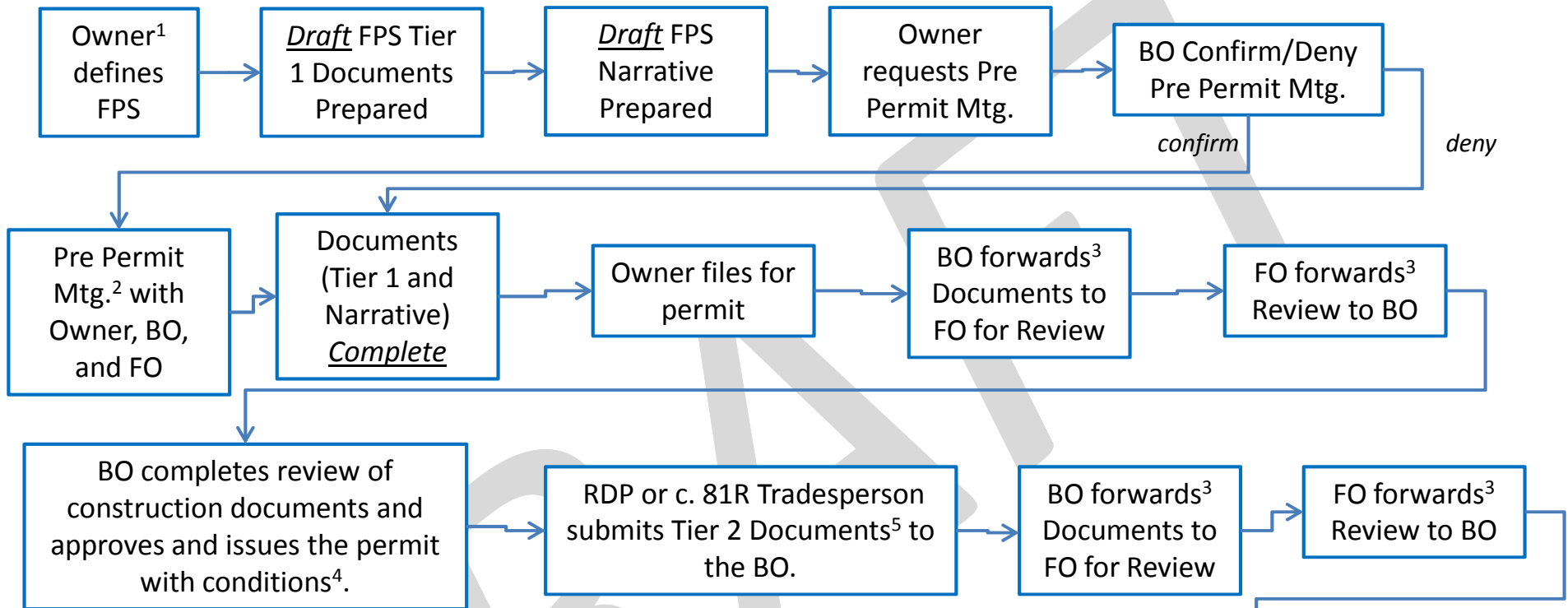
Below are the E-Memos issued since inception in November 2014:

- [2015_05_05_Installation_of_Signs_&_Precast_Concrete_Steps](#)
- [2015_04_30_Building_Safety_Month](#)
- [2015_03_03_Fire_Protection_Permit_DFS_DPS](#)
- [2015_03_03_Floor_Fire_Protection](#)
- [2015_02_12_Roof_Collapse_Advisory](#)
- [2015_01_02_Floor_Fire_Protection_&_Installation_Fire_Protection_Systems](#)
- [2014_12_19_Radon_&_Floor_Fire_Protection](#)
- [2014_12_17_Masonry_&_Radon_Amendments_&_IECC_2012_&_Air_Testing](#)
- [2014_11_06_Radon](#)

Recent BBRS Meeting Topics

- Training
 - Feedback from Building Officials and Builders indicate BBRS/DPS is not ‘training’ enough
 - 2nd quarter 2015: Building Official University
 - Table 110 Periodic Inspection Checklist
 - DPS Process for Building Department Reviews
 - 780 CMR 9th edition Preview
 - BBRS/DPS News and Updates
 - 3rd quarter 2015: Training at SEMBOA, MBCIA, and BOWM on 780 CMR Administration Process for Fire Protection System Installations

Process Flow Chart; Installation of FPS



Note 3:
Per the code requirements the building official forwards the plans to the fire official, who has 10 days to complete the review. Any non compliances are noted in the report that is issued to the building official.

Note 5:
The submittal must include a registered design professional (RDP) review of the shop drawings which indicates that they meet the design intent. Also Construction Control applies when an RDP is involved. C. 81R tradesperson may need to self certify

Note 4:
The permit is issued by the building official with the condition that NO CONSTRUCTION is to begin without review and approval of shop drawings (Tier 2 Documents)

Note 2
This pre permit meeting between the building official (BO) and fire official (FO) and the owner and his/her representatives is useful to identify:

- Chapter 9 fire protection system(s) in the building, and
- Items for fire official approval (hose threads, etc.), and
- Registered Design Professional(s) and /or 81R Individuals, and
- Tier 1 Submittals which may include:
 - X
 - Y
 - Z
- Owner of the Narrative Report on the integration of the fire protection system(s)
- Acceptance testing protocol

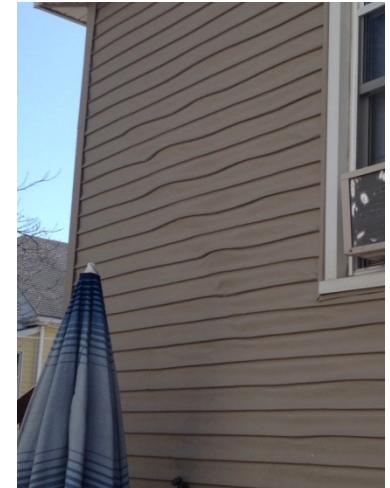
Note 1:
Owner is as defined in the building code, i.e. Every person who alone or jointly or severally with others (a) has legal title to any building or structure; or (b) has care charge or control of any building or structure in any capacity including but not limited to agent, executor, executrix, administrator, administration, trustee or guardian of the estate of the holder of legal title; or (c) lessee under a written letter agreement; or (d) mortgagee in possession; or (e) agent, trustee or other person appointed by the courts. Each such person is bound to comply with the provisions of this code.

Other items to include?

- What licenses are required,
- What is typically missed at plan review,
- What inspections must be done,
- What to look for when doing inspections, common misses, etc., etc.

Recent BBRS Meeting Topics

- Reflected Sunlight
 - Certain windows may concentrate light and therefore heat which may ‘damage’ items where this light lands:
 - Vinyl siding (flowing), or
 - Wood shakes (with actual fire ignition), or
 - A Toyota Prius (flowing)
 - BBRS working with DFS to survey municipalities to gather data and work to a solution.



Recent BBRS Meeting Topics

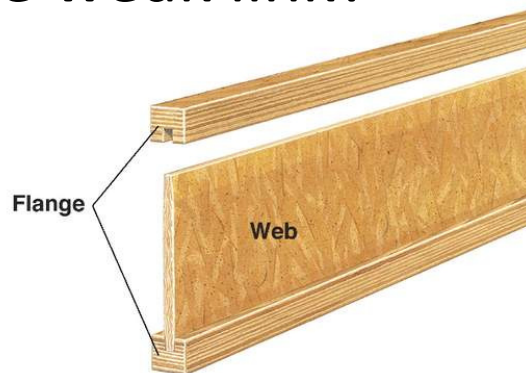
- Floor Fire Protection

- In residential buildings (IRC) first floor of “something” other than sawn lumber must be protected. Why?

- 2 X 10 floor joists can endure about 15 minutes of flame before failure
 - Equivalent strength I-Joists cannot endure 15 minutes of flame before failure

- Where is the weak link?

- Flange?
 - Web?
 - Glue?



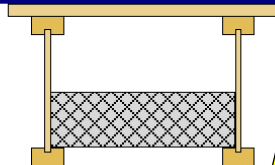
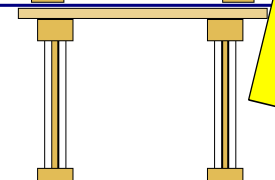
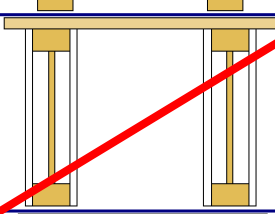
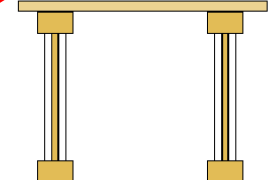
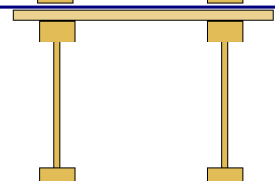
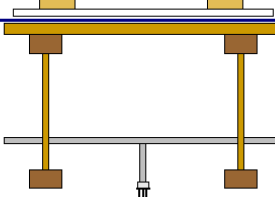
Residential Code:

Floor Fire Protection

- First floor framing plans with I-Joists must indicate:
 - Coverage with ½ in. Gypsum Board, or
 - Coverage with a sprinkler system, or
 - I-Joists produced by Weyerhaeuser with Flak Jacket Protection (factory-applied intumescent paint), or
 - I-Joists meeting ASTM D5055 and protected by one of four methods:
 - 3 ½ in. thick Mineral Wool Insulation Installed Horizontally between Joists
 - Ceramic Fiber Blanket Attached to Web
 - ½ in. Gypsum Board Attached to Web
 - ½ in. Gypsum Board Attached to Sides of Flanges



Floor Fire Protection

Method Type & Description	AJS Joists ESR-1144	BCI Joists ESR-1336	Fire Test Report Number or Code Reference	Cross-Section Detail
Mineral Wool Insulation Installed Horizontally between Joists	Figure 5	Figure 10	WFCi Report #14072a	
1/2" Gypsum Board Attached to Web	Figure 3	Figure 8	WFCi Report #14036ar1	
1/2" Gypsum Board Attached to Sides of Flanges	Figure 4	Figure 9	WFCi Report #13025b	
Ceramic Fiber Blanket Attached to Web	Pending	Pending	WFCi Report #14096	
1/2" Gypsum Board Attached to Bottom of Flange	Figure 6	Figure 11	MA 780 CMR 51 section R503.1	
Partial Sprinkler System	Figures 3-6	Figures 8-11	MA 780 CMR 51 section R503.1, exception 2	

Approved on
1/13/2015

Floor Fire Protection

BBRS Official Interpretation No. 2014_03

Date: April 8, 2014 and revised January 13, 2015
Subject: 8th Edition 780 CMR Chapter 51 Floor Protection Section R503.1

Approved on
1/13/2015

Background/Discussion:

The requirement for floor fire protection of residential buildings was recently adopted by the BBRS and will be in full effect on July 1, 2014. Several questions pertaining to it have arisen. Found below is Background/Information and several Q&A that were provided by the American Wood Council. These questions and answers along with the specific change in *italic* made by DPS Staff are considered to be an official interpretation of the BBRS on MA amendment to 780 CMR 51 section R503.1.

Background/Information

The genesis for this requirement was five separate code change proposals introduced in 2009 to revise the IRC. The IRC Code Development Committee disapproved all the proposals and requested that the interested parties work together to develop a public comment. In October 2010, the ICC membership approved the current text (*of the floor fire protection requirements in the IRC 2012*), jointly developed by the International Association of Fire Fighters, International Association of Fire Chiefs-Life Safety Section, the National Association of Home Builders, and the American Wood Council.

The language adopted for the current MA Building Code was adapted from the IRC language. This language raises questions about the application or intent of the code.

Question 1: Are trusses or I-joists that utilize dimension or structural composite lumber components of at least 2-inch nominal dimension exempt from the requirement for ½ inch gypsum wallboard membrane, 5/8 inch wood structural panel membrane, or equivalent on the underside of the floor framing?

Answer 1: No. The intent of this provision is to permit solid framing members (i.e. solid wood joists), of at least 2-inch nominal thickness, to be used in traditional floor systems (e.g. 2x10) with a subfloor membrane attached to its upper surface and no membrane required to be attached to its lower surface.

The International Code Council has issued an advisory opinion (IRC Section R501.3, Exception 4) to clarify that the exception does not apply to trusses. The supporting information submitted for revising 2012 IRC identified where basic membrane protection was to be required and specifically cited unprotected floor/ceiling assemblies using trusses, I-joists, cold formed steel members, and bar joists as structural members needing to meet the membrane requirements. Additionally, the ICC advisory opinion states that

Floor Fire Protection

eCopy PaperWorks - [SR-405A (September 2014) (00085246)]

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APA

System Report

SR-405A SEPTEMBER 2014

Fire Protection of Floors Constructed with Prefabricated Wood I-Joists for Compliance with the International Residential Code

1. BASIS OF THE SYSTEM REPORT

- 2012 International Residential Code (IRC): Sections R502.1.4 Prefabricated wood I-joists and R501.3 Fire Protection of Floors
- ASTM D5055-09 recognized by the 2012 IRC
- International Code Council Evaluation Service, LLC (ICC-ES) Acceptance Criteria for Prefabricated Wood I-joists (AC14), dated October 2013 (editorially revised February 2014)
- ICC-ES Evaluation Report ESR-1405

2. SYSTEM DESCRIPTION

Starting with the 2009 IBC and IRC, one- and two-family dwellings are required to install an automatic fire sprinkler system (IBC Section 903.2.8 and IRC Section R313.2). However, not all local jurisdictions in the U.S. have adopted these

Page 1 of 9 8.5 x 11.0 in 300 DPI 4:13 PM 1/13/2015

In essence SR- 405 complies with official interpretation 2014-03

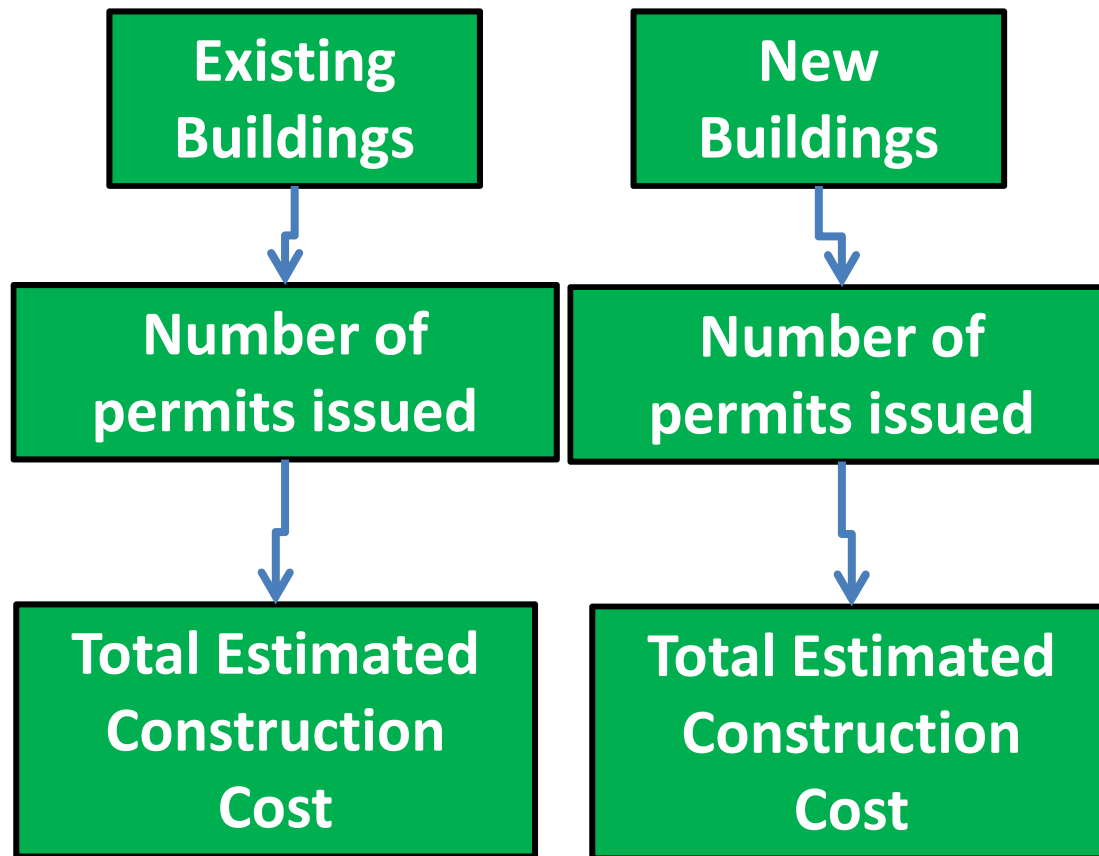
Floor Fire Protection

- Open Web Joists to Date Not Approved



Recent DPS/AGC News

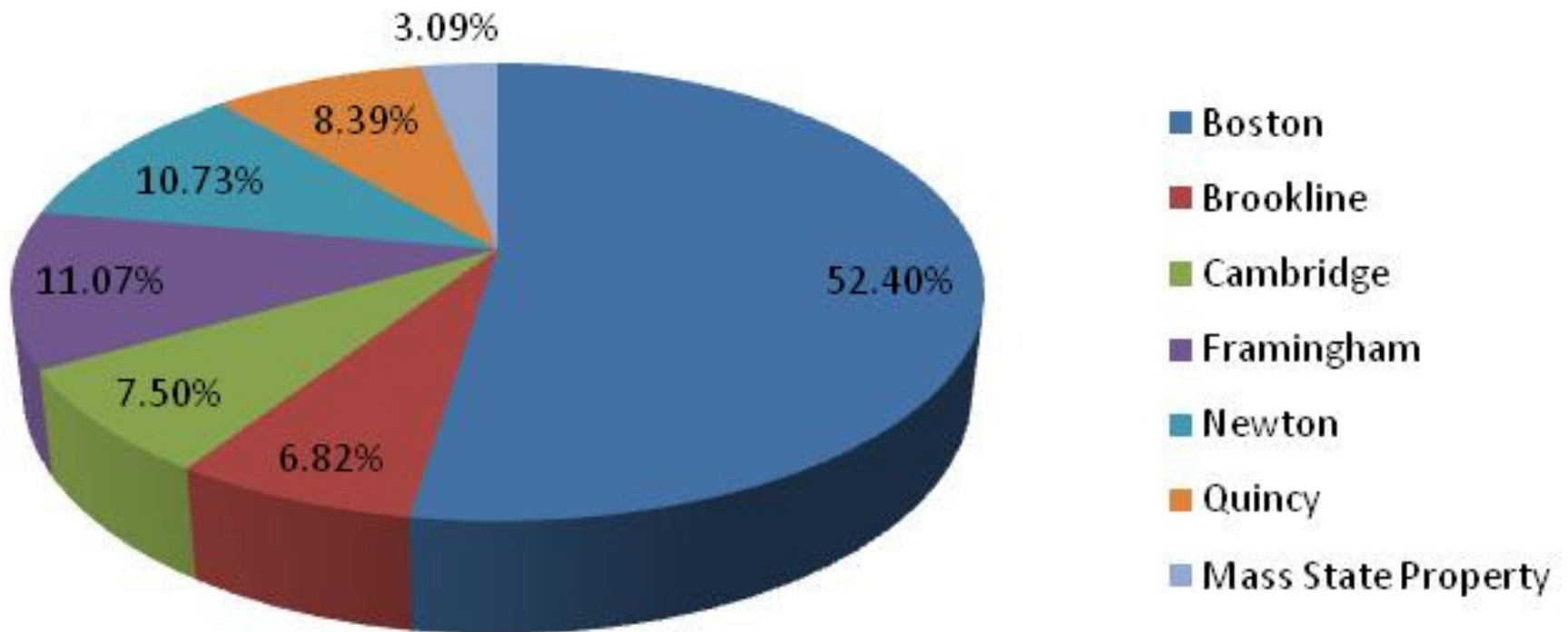
- Permit Tracking: Data sets...



DPS/AGC Permit Tracking

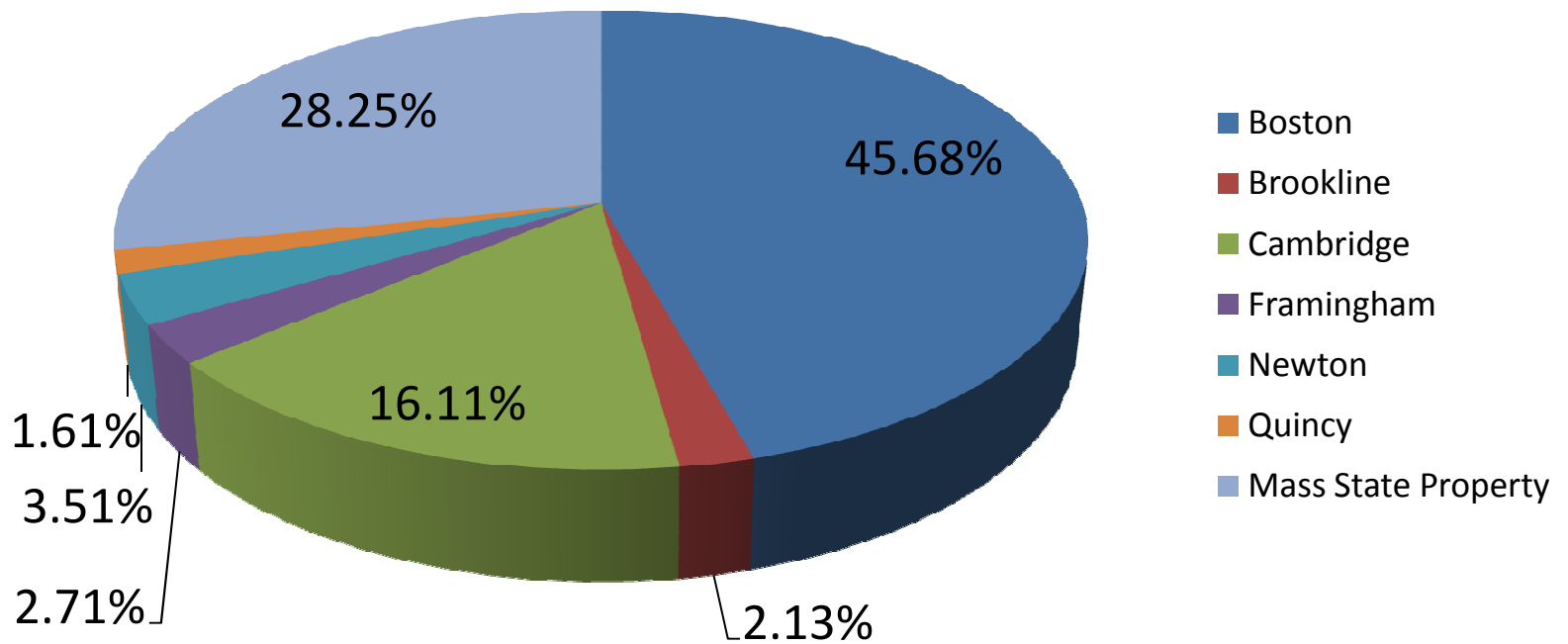
- Total number: September 2014 to February 2015*

Average Percentage of Total Permits



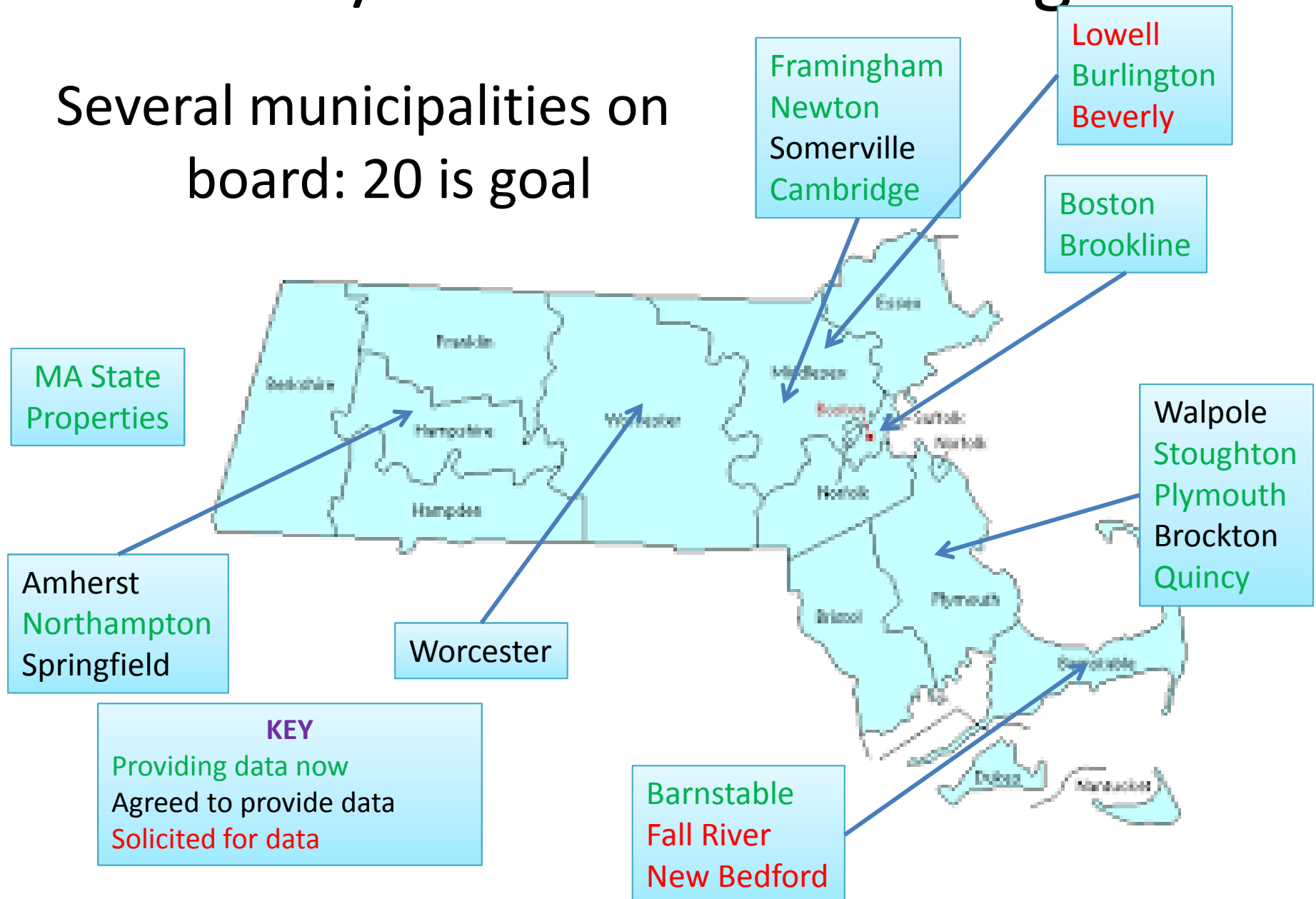
DPS/AGC Permit Tracking

- Total Cost of Construction (Sep to Feb)*
Average Percentage of Total Permit Value



DPS/AGC Permit Tracking

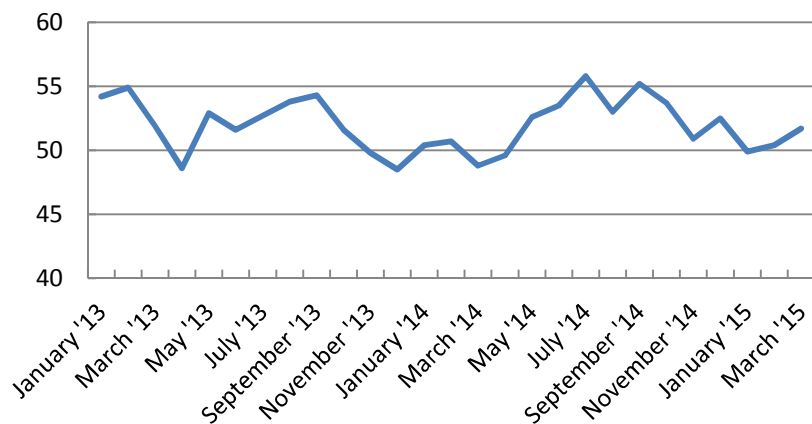
Several municipalities on
board: 20 is goal



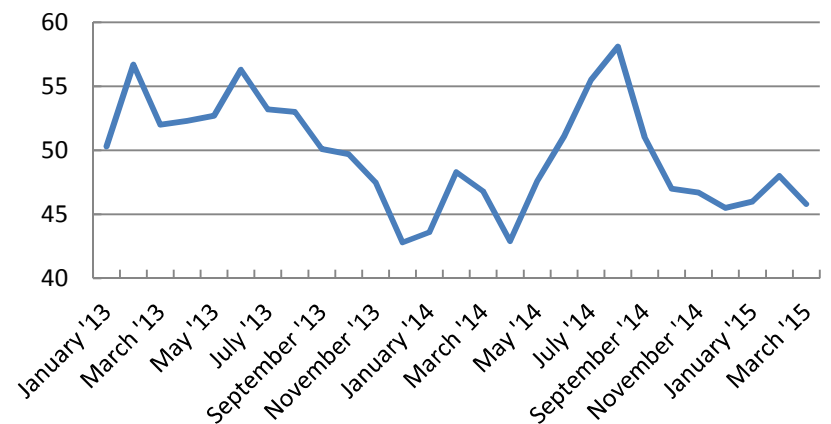
ABI: Architectural Billing Index

- What is it?
- What has it looked like Nationally and Regionally?
- Can it predict your 'future' permit activity?

National ABI



Northeast Regional ABI



Permit Activity Predictions

- March to May 2015:

	March Permit #	March Permit Value	April Permit #	April Permit Value	May Permit #	May Permit Value
Boston	975	\$193,158,298.42	1031	\$236,088,556.53	1,224	\$251,820,112.19
Brookline	127	\$9,011,329.24	134	\$11,014,135.72	159	\$11,748,053.07
Cambridge	139	\$68,124,002.47	148	\$83,264,853.44	175	\$88,813,134.55
Framingham	206	\$11,460,745.96	218	\$14,007,945.77	259	\$14,941,353.06
Newton	200	\$14,861,489.65	211	\$18,164,519.30	251	\$19,374,896.24
Quincy	156	\$6,802,339.34	165	\$8,314,188.35	196	\$8,868,197.07
Mass State Property	58	\$119,444,061.32	61	\$145,991,014.91	72	\$155,718,999.23

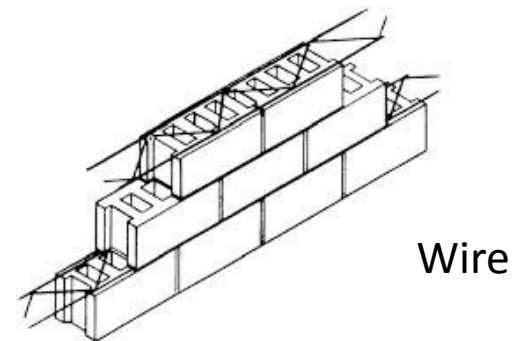
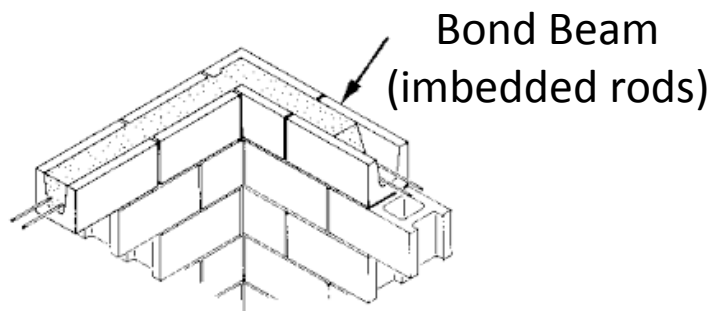
8th Ed. Recent Amendments & Policies.

- IECC 2012 in effect now.
- Building officials requested ‘relaxing’ air testing qualification requirements.
BBRS policy:
 - An “approved third party” is “*an individual who, in a notarized letter of verification, swears in writing under the penalties of perjury that he/she has demonstrated competence and at least two (2) years of experience in the field of blower door, and/or duct blasting and/or, mechanical ventilation testing*” and that
 - the building official shall accept said letter as part of the permit application, and that
 - this policy shall expire on the date that the 9th edition of 780 CMR is in effect.



8th edition: Radon and Masonry

- Radon Amendment: Effective now
 - Applies to new one- and two-family dwellings and townhouses of three stories or less.
 - Requires installation of a passive radon collection system in Radon Zone 1 (Essex, Middlesex and Worcester counties)
- Masonry Reinforcing Amendment: Effective now.
 - Revised the steel reinforcing requirements for masonry walls based on recent research and testing.
 - Reduces the number of bond beams required by substituting ladder type course reinforcement which is easier to construct. These changes add clarity, construction flexibility and are expected to reduce construction cost.



Recent BBRS Appeal Dockets

- R1-Use* and Housing for the Homeless
 - Several municipalities experiencing this
 - Expect this to become a matter for the full BBRS
 - IBC 2015 language for R-1 and R-2 is copied here:

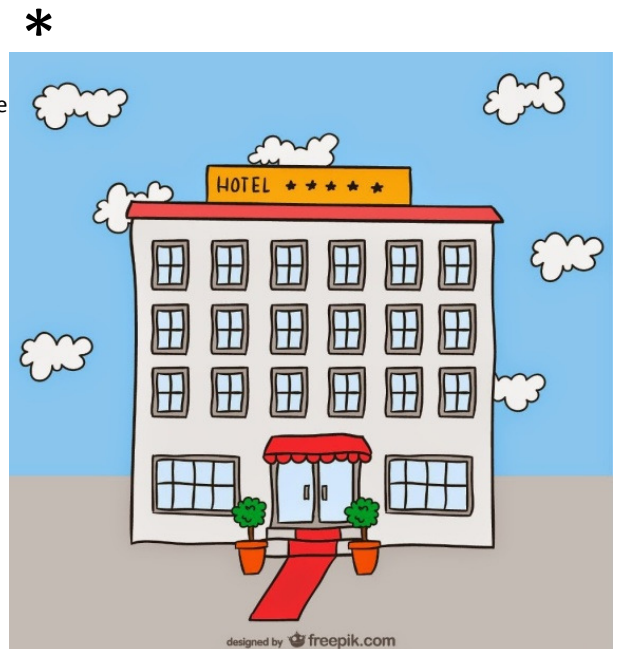
310.3 Residential Group R-1. Residential Group R-1 occupancies containing *sleeping units* where the occupants are *primarily transient in nature*, including:
Boarding houses (transient) with more than 10 occupants
Congregate living facilities (transient) with more than 10 occupants
Hotels (transient)
Motels (transient)

310.4 Residential Group R-2. Residential Group R-2 occupancies containing *sleeping units* or more than two *dwelling units* where the occupants are primarily permanent in nature, including:
Apartment houses
Boarding houses (nontransient) with more than 16 occupants
Congregate living facilities (nontransient) with more than 16 occupants
Convents
Dormitories
Fraternities and sororities
Hotels (nontransient)
Live/work units
Monasteries
Motels (nontransient)
Vacation timeshare properties

CONGREGATE LIVING FACILITIES. A building or part thereof that contains sleeping units where residents share bathroom or kitchen facilities, or both.

TRANSIENT. Occupancy of a dwelling unit or sleeping unit for not more than 30 days.

SLEEPING UNIT. A room or space in which people sleep, which can also include permanent provisions for living, eating, and either sanitation or *kitchen facilities* but not both. Such rooms and spaces that are also part of a dwelling unit are not sleeping units.

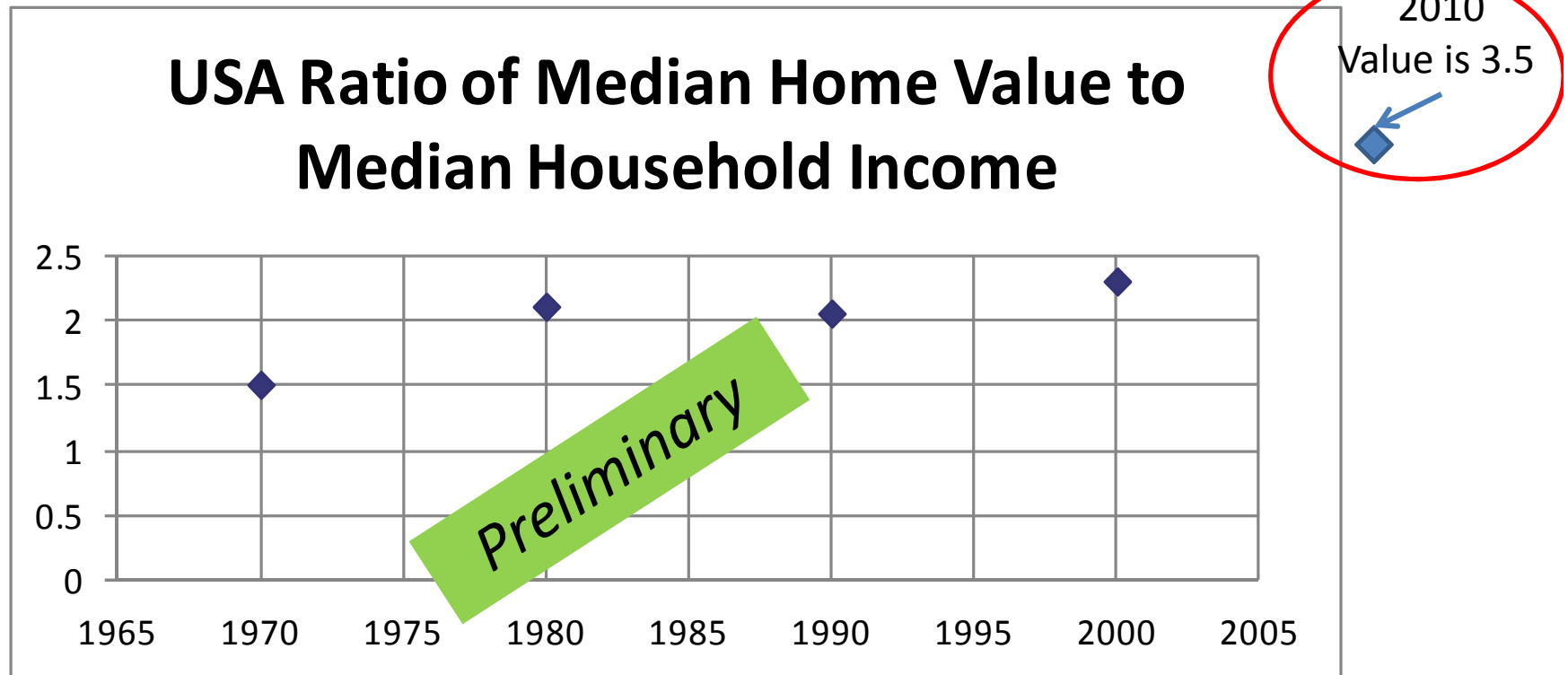


Recent BBRS Meeting Topics

- White Papers on
 - Fire Protection Systems and Energy Conservation in Multi-Unit Residential Buildings
- Preliminary Papers Approved and Released for public comment
 - Public Comment review has been ‘Tabled’.

The Papers: Data & Analysis

- Home Affordability



US Census Data from 1970 to 2000 indicate that:
Median US home values increased 85% (65K\$ to 120K\$) while
Median US household income increased 21% (43K\$ to 52K\$) in the same time period.

The Papers: Energy Conservation

- Energy savings:
 - The code (IECC) **then** vs. **now** is at the limit for:
 - Building envelope:
 - Walls, then R-13 and now R-20 and
 - Ceilings, then R-30 and now R-49
 - Floors, then R-19 and now R-30
 - Fenestration, then U-factor .45 and now .32
 - Air tightness then 13 ACH and now 3 ACH
 - In essence this means to build:
 - a 'net zero' home with conventional framing then
 - renewables will need to be part of the construction documents.
- Requirements change too often and vary from town A to B.

Preliminary
paper

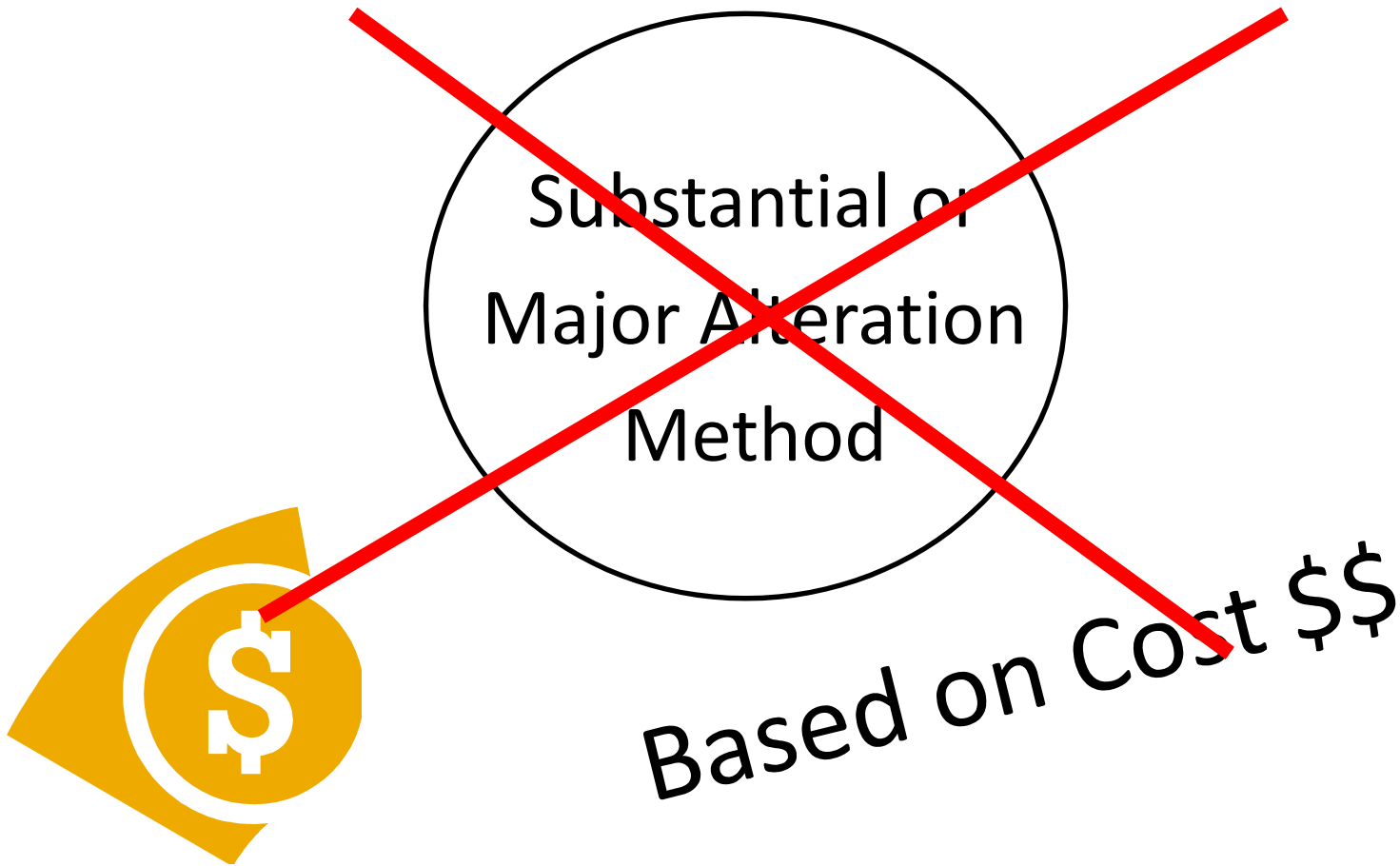
The 'Old' Chapter 34...7th edition

Substantial or
Major Alteration
Method



Based on Cost \$\$

The 'New' Chapter 34



Chapter 34 and IEBC Philosophy

- From the IEBC Preface: *“...intended to encourage the use and reuse of existing buildings while requiring reasonable upgrades and improvements...”*
- From ICC Workshop: *“...provides a logical approach and predictable process...”*
 - 7th edition and earlier: upgrades based on cost \$\$ and other
 - 8th edition (IEBC): upgrades based on work area ft² and other

Chapter 34: Work Area Method

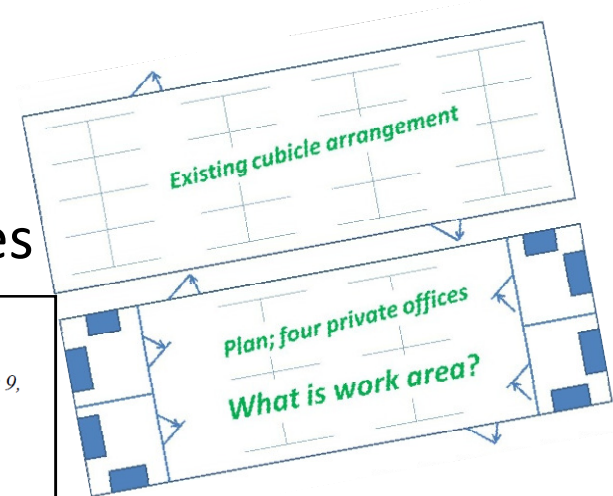
- **ALTERATIONS – LEVEL 1:** include the removal and replacement or the covering of existing materials, elements, equipment, or fixtures using new materials, elements, equipment, or fixtures that serve the same purpose

Chapter 34: Work Area Method

- **ALTERATIONS – LEVEL 2:** include the reconfiguration of space, the addition or elimination of any door or window, the reconfiguration or extension of any system, or the installation of any additional equipment.
- **ALTERATIONS – LEVEL 3:** apply where the *work area* exceeds 50 percent of the aggregate area of the building.

The 'Biszko' Interpretation

- Official interpretation for Existing Buildings
 - Provides
 - a graphic for *work area*, and
 - an actual project example, and
 - several level 1 alteration examples



BBRS Official Interpretation No. 2014_01

Date: February 11, 2014 and updated with Q&As 7 and 8 on October 14, 2014 and updated with Q&A 9 on December 9, 2014

Subject: 8th Edition 780 CMR 34 Existing Buildings

Background/Discussion:

There are several sections 780 CMR 34 (*International Existing Building Code 2009* with MA amendments) which require interpretation from the BBRS to ensure that code compliance and enforcement are consistent for owners, builders, and building officials. The questions and answers below are intended to be the official interpretation of the BBRS on these matters.

QUESTION 1

Must a compliance alternative to meeting the code for new construction per **Section 101.5.0** be issued by a *registered design professional*?

ANSWER 1

No not necessarily. However, if the degree to which the code for new construction is not met or if the project is complex, then it may be practical to employ the services of a *registered design professional* (RDP). For example, if a restaurant, changing to a Nightclub, does not meet the new construction means of egress requirements of a Nightclub then an RDP may be able to determine whether the existing means of egress is sufficient to accommodate the occupant load or whether the existing means of egress needs improvements to safely do so.

QUESTION 2

Overview: Table of Contents

Chapter	Title
1	Scope and Administration <i>(see Chapter 1 780 CMR)</i>
2	Definitions
3	Prescriptive Compliance Method
4	Work Area - Classification of Work
5	Repairs
6	Alterations: Level 1
7	Alterations: Level 2
8	Alterations: Level 3
9	Change of Occupancy
10	Additions
11	Historic Buildings
12	Relocated or Moved Buildings
13	Performance Compliance Method
14	Construction Safeguards
15	Reference Standards
Appendix A	Seismic Guidelines and Provisions
Appendix B	Supplementary Accessibility Requirements
Resource A	Guidelines on Fire Ratings of Archaic Materials

7-pages

31-pages

11-pages

201-pages

Chapter 34: Definitions

- **WORK AREA:** That portion or portions of a building consisting of all reconfigured spaces as indicated on the construction documents. Work area excludes other portions of the building where incidental work entailed by the intended work must be performed and portions of the building where work not initially intended by the owner is specifically required by this code.

Performance Method; *Key Points*

- Found in Chapter 13 of the IEBC
 - May be an alternative to high cost requirements required by say the Work Area Method.
- Investigation and Evaluation Report requires;
 - Structural Analysis; for new loads that the existing building is subjected to.
 - Submittal documents and any compliance alternatives
 - Determination of Compliance via Sections 1301.5 to 1301.9

*Building official can seek review by a Registered Design Professional
see MA amendment 1301.3.4*

Official Interpretations

- 2012_01_Official Interpretation_Native Lumber_Approved 
- 2012_02_Official Interpretation_Existing_Smoke_Alarm_Requirements_Approv... 
- 2012_03_Official Interpretation_Restaurant_Nightclub_Deck_Egress_Approv...
- 2012_04_Official Interpretation_Modular_Building_Repair_and_Renovation_A...
- 2012_05_Official Interpretation_Entrance_Door_Apartment_Houses_Approved
- 2012_06_Official Interpretation_Construction_Control_107.3.4.1_and_107.6...
- 2012_07_Official Interpretation_Fire_Rating_Exterior_Composite_Walls_10_09_12_approved_
- 2012_08a_Official Interpretation_Sprinklers_Antifreeze__approved_
- 2012_08b_Official Interpretation_Sprinklers_13R__approved_ 
- 2012_09_Official Interpretation_Replacement_Windows__approved_ 
- 2013_02_Official Interpretation_Plain_Concrete_Foundation_Walls_04_09_13_approved_ 
- 2013_03_Official Interpretation_Fire_Service_Access_Elevator_and_Lobby_Requirements (approved) 
- 2013_04_Official Interpretation_Emergency_Escape_and_Rescue_Opening (approved)1 
- 2013_06_Official Interpretation_Type_III_Construction_Exterior_Walls_07_09_2013_(approved)
- 2014_01_Official Interpretation_Existing_Buildings_(Approved December 9 2014)
- 2014_01_Official Interpretation_Existing_Buildings_(Approved February 11 2014)
- 2014_02_Official Interpretation_Exterior_Walls_(Approved)
- 2014_03_Official Interpretation_Floor_Protection_R503.1_(Approved) 
- 2014_04_Stretch_and_Base_Code_Application_Approved 
- 2014_06_Official Interpretation_Masonry_Buildings_(Approved December 9 2014)
- 2014-05-official-interpretation-change-of-occupancy-seismic-approved-june-10-2014

Quiz

1. What square footage of living space triggers sprinklers in a one family dwelling?
2. Does a second set of stairs from the basement to the first floor meet the requirements of EERO?
3. Can a foundation wall in a one family dwelling be constructed without reinforcing?
4. An owner applies for a permit for a four family. Her I&E report from an architect indicates
 - remove plaster and lathe of the exterior walls, and
 - update the wiring, and
 - replace the windows and
 - insulate and install ½ gyp board

The I&E indicates a level 1 alteration. Is it OK to issue the permit?

5. At rough inspection for item (4) you see high density cellulose insulation filling the entire balloon frame, but no fire blocking. What do you do?

Quiz

6. How many days does a building official have to review a permit application?
7. How many days must a building official respond to a request for an inspection?
8. What R-Use has occupants primarily transient in nature, R-1 or R-2?
9. Must a new four family have two exits front and back that lead to a public way?
10. Is the PVC plumbing waste stack in a basement or attached garage of a single family dwelling required to be in a rated enclosure?
11. When is a certificate of occupancy required for work on an existing building?
12. Can a local inspector issue a permit? A certification of occupancy?
13. Who has the authority to issue the permit for the installation of a fire protection system?

14. How many days does a fire official have for her fire protection system plan review? When does her clock start ticking?
15. What Exposure Category is a home on and facing the ocean in West Yarmouth and what Exposure Category is most of the Cape?
16. What gypsum board is required in a one family dwelling between the garage and family room above?
17. Do fire protection system shop drawings require a engineer 'stamp'.
18. Can a building official insist on having a registered design professional manage a 'construction control' project.
19. What maps are being updated by FEMA?
20. 780 CMR says you need a exhaust fan when there is a tub or shower. Plumbing Code "Basic Principals" says you need mechanical ventilation when there is a toilet..which code do you enforce?
21. Do the structural and other plans for a new single family dwelling **need to be stamped** by a registered design professional?

Quiz

For this....the answer is yes.

Multiple LVLs supporting roof framing with no clear lateral load resisting path to ground so structural engineer review and signoff submitted with permit application.



Quiz

But generally speaking....

Quiz

NO!!!!

On behalf of the DPS/BBRS:

...always want your input!

and

always appreciate your input!

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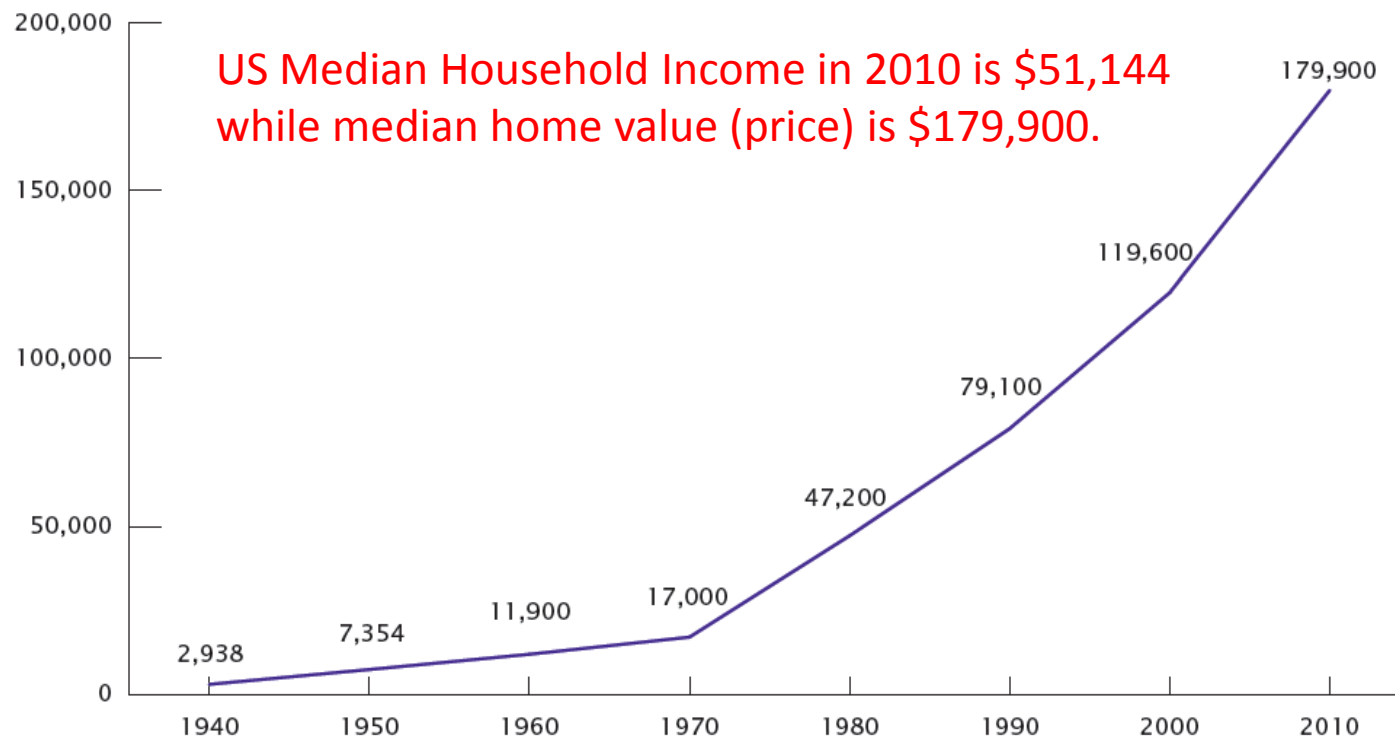


Back up slides...

Figure 1.

Median Home Value in the United States: 1940 to 2010

(Current dollars. Data based on sample. For information on confidentiality protection, sampling error, nonsampling error, and definitions, see www.census.gov/acs/www/)



Source: U.S. Census Bureau, Census of Population and Housing, decennial volumes.

ABI: Frequently Asked Questions

FAQ for 2014 AIA ABI White Paper: “Designing the Construction Future”

- **What is the composition of the survey panel?**
- The ABI survey panel currently consists of approximately 700 firms that are surveyed monthly. Firms are fairly representative of overall AIA firm composition in terms of size, geographical location, and building type specialization.
- **Who are some financial services and construction related companies that follow the index?**
- Wells Fargo Securities, Goldman Sachs, bank of America, JP Morgan, TIAA-Cref, Fidelity Management, Bank of America, BB&T Capital Markets, ISI Group, Turner Construction, Steel Market Intelligence, NCI Building Systems, Hubbell Incorporated, FMC Corporation, Knoll Inc.
- **How are the data reported?**
- The national level data (Billings, New Design Contracts, Inquiries) are reported on a monthly basis. The Regional and Sector indexes are reported as three-month moving averages, due to relatively smaller sample sizes.
- **What’s the difference between design billings and new design contracts?**
- Design billings occur when the design phase of a project is underway. They typically run throughout the lifespan of the project and are invoiced at regular intervals (often monthly). Design contracts are a one-time commitment to a specific new project, and are an indicator that billable design work will be starting in the near future.
- **What is a diffusion index/how is the ABI computed?**
- The ABI is computed as a diffusion index, with the monthly score calculated as the percentage of firms reporting a significant increase plus half the percentage of firms reporting no change. Comparisons are always made to the previous month. A diffusion index measures the magnitude of change. Our diffusion indexes are centered around a score of 50, where a score of 50 indicates no change from the previous month, a score above 50 indicates an increase/growth and a score below 50 indicates a decrease/decline. The higher a score above 50, the larger the share of firms experiencing growth, while the lower the score below 50, the larger the share of firms experiencing a decline.
- **What is the relationship between the ABI and nonresidential construction spending?**
- The new ABI White Paper shows that the ABI leads nonresidential construction spending (measured in terms of its annual percent change) by approximately 11 months on average.
- **How do you calculate the index for new design contracts?**
- The design contracts index is a diffusion index centered around 50, just like the ABI. A score of 50 indicates no change in new project levels from the previous month, while a score above 50 indicates that the value of new design contracts increased from the previous month and a score below 50 means that the value decreased.
- **How should the design contracts indicator be used in relation to the ABI?**
- Much as construction contract awards provide an indication of future construction spending, design contracts are expected to provide a similar window into future design activity and an early indicator of subsequent construction contract awards. Trends in the dollar volume of design contracts, therefore, can fill an important gap between more subjective trends in project inquiries and actual design billings.